We claim:

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- 1. An aqueous dispersion comprising at least one ethylene copolymer wax comprising from 60 to 99.5% by weight of ethylene and from 0.5 to 40% by weight of at least one ethylenically unsaturated carboxylic acid in copolymerized form and also at least one hydrophobic low molecular weight organic substance.
- A dispersion as claimed in claim 1, wherein at least one ethylenically
 unsaturated carboxylic acid is a carboxylic acid of the formula I

$$R_{Z_{\overline{A}}}^{2}$$
OH

in which the radicals are defined as follows:

 R^1 is selected from among hydrogen and unbranched or branched C_1 - C_{10} -alkyl, R^2 is selected from among hydrogen, unbranched or branched C_1 - C_{10} -alkyl and COOH, COOCH₃, COOC₂H₅.

- 3. A dispersion as claimed in claim 1 or 2, wherein at least one low molecular weight hydrophobic substance is an oil-soluble dye.
- 4. A dispersion as claimed in any of claims 1 to 3, wherein the low molecular weight hydrophobic substance is selected from among distyryl compounds and benzoxazole derivatives.
- A process for preparing aqueous dispersions as claimed in any of claims 1 to 4, which comprises firstly mixing one or more ethylene copolymer waxes with at least one hydrophobic low molecular weight organic substance and subsequently dispersing the mixture in water.
- 30 6. The use of dispersions as claimed in any of the preceding claims in paper coating.

- 7. A paper coating composition comprising a dispersion as claimed in any of the preceding claims.
- 8. Paper containing oil-soluble fluorescent dyes.

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9. Paper treated with a paper coating composition as claimed in claim 7.